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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/023,376 | 12/13/2001 | David W. Kuhns | 56333US002 | 2445 |
| 32692 | 7590 | 11/16/2004 | EXAMINER | |
| 3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427 | | | PUNNOOSE, ROY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2877 | |

DATE MAILED: 11/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 10/023,376 | Applicant(s) KUHNS ET AL. | |
| | Examiner Roy M. Punnoose | Art Unit 2877 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 8/9/04
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-8, 10, 11, 14-16, 18 and 25-31 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7 is/are allowed.
- 6) ☒ Claim(s) 4-6, 8, 10, 11, 14-16, 18 and 25-31 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Receipt of applicant's amendments filed on August 09, 2004 is acknowledged.

Applicant's arguments filed August 09, 2004 have been fully considered but they are not persuasive.

THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Response to Amendments

2. In the amendments filed on August 09, 2004, the applicant has not presented any arguments on the merits of the rejections and/or allowability of the claims of the previous office action.

3. Claims 1-3, 9, 12, 13, 17 and 19-24 have been cancelled by the applicant. Claims 4-8, 10, 11, 14-16, 18 and 25-31 are pending in the application.

4. Applicant's amendment has necessitated the new ground(s) of rejection presented in this Office action, and the amendment of the claims has necessitated the Examiner to make this office action FINAL.

Claim Rejections - 35 USC § 112

5. Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "Particle type radiation" is not disclosed in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (JP 61231404 A) in view of Berner et al (IBM Technical Disclosure Bulletin, Vol.25, No.4, September 1982).

9. Claims 4 rejected because:

- A. Iwasaki discloses a method comprising, disposing an electromechanical radiation collection device 9 in a roll 2 to collect radiation impinging the roll 2, wherein the roll has an outer surface, for the purpose of measuring the radiation incident on the roll, or, on an object on the roll (see Figure 2). However, Iwasaki does not teach that the collection device is disposed at a plane tangential to the outer surface.
- B. Berner et al (Berner hereinafter) discloses a method comprising, disposing an electromechanical radiation collection device 7 outside a roll/drum (not shown) to collect radiation impinging the roll/drum, wherein the roll/drum has an outer surface, and, the collection device 7 is disposed at a plane tangential to the outer surface for the purpose of measuring the radiation incident on the roll/drum (see abstract and figure).

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C. In view of Berner's teaching of disposing a collection device at a plane tangential to the outer surface, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such a method into Iwasaki's method due to the fact that it would provide an improved method for accurately measuring the radiation incident on the roll/drum.

10. Claim 5 is rejected because:

A. Iwasaki and Berner teaches all claim limitations as disclosed above, except that the collection device is disposed radially inward from a plane tangential to the outer surface of the roll.

B. In view of Berner's teaching of disposing a collection device at a plane tangential to the outer surface, but radially outward, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Berner's methodology and have a collection device that is disposed radially inward from a plane tangential to the outer surface of the roll, or, in any other desired orientation, due to the fact that it would provide an improved and alternate method for accurately measuring the radiation incident on the roll/drum.

11. Claims 6, 8, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (JP 61231404 A) in view of Berner et al (IBM Technical Disclosure Bulletin, Vol.25, No.4, September 1982) and further in view of Tsunoda Arihiro (JP 05165344).

12. Claims 6, 25 and 26 are rejected because:

A. Iwasaki and Berner teach all claim limitations as disclosed above, except for the disposing of a web between a radiation source and a roll/drum.

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- B. Tsunoda Arihiro (Arihiro hereinafter) discloses a method comprising the disposal of a web (such as a sheet of paper) between a radiation source 39b and a roll/drum 21 (see abstract).
- C. In view of Arihiro's teaching of a web that is disposed between a radiation source and a roll/drum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Iwasaki's and Berner's methodologies to have a web that is disposed between the radiation source and the roll/drum, due to the fact that it would provide an improved apparatus and method for accurately measuring the radiation incident on the web on the roll/drum.

Note:

- a) The radiation source is not explicitly shown by Iwasaki and Berner, but is inherent in their method and apparatus.
- b) Claim 26 is an exact duplicate of claim 25.
13. Claim 8 is rejected because:
- A. Iwasaki and Berner teach all claim limitations as disclosed above, except that the web includes at least one coating layer.
- B. In view of Arihiro's teaching of a web that is disposed between a radiation source and a roll/drum, it would have been obvious to one of ordinary skill in the art at the time the invention was made to dispose a web with any type of coating or pattern, or a web made with any type of material, due to the fact that it would provide an alternate method to accurately measure the radiation incident on the web on the roll/drum so that the characteristics of the web or the type of radiation that is collected can be determined.

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14. Claims 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwasaki (JP 61231404 A) in view of Berner et al (IBM Technical Disclosure Bulletin, Vol.25, No.4, September 1982) and Tsunoda Arihiro (JP 05165344) and further in view of what is common knowledge in the art.

Claim 10 is rejected because:

- A. Iwasaki, Berner and Arihiro teach all claim limitations as disclosed above, except for the explicit disclosure that the radiation source is calibrated using measured characteristics of the collected radiation.
- B. Calibrating radiation sources using measured radiation to improve accuracy of a given measurement is old and well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a calibration method step to art taught by Iwasaki, Berner and Arihiro to provide an improved method for accurately measuring the radiation incident on the web on the roll/drum.

15. Claim 11 is rejected for the same reasons of rejection as disclosed above, and additionally because Iwasaki discloses collecting radiation at a plurality of points transversely across the roll/drum. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to collect radiation at a plurality of points transversely across the roll/drum to provide an improved method for accurately measuring the radiation incident on the web on the roll/drum.

16. Claim 14 is rejected because in view of Iwasaki's teaching of a method of collecting radiation, it would have been obvious to one of ordinary skill in the art at the time the invention

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was made to collect any type of radiation, including particle type of radiation to provide an improved method for accurately measuring the radiation incident on the web on the roll/drum.

17. Claim 15 is rejected because, in view of Iwasaki's, Berner's and Arihiro's teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to measure any type of characteristics of the radiation collected, due to the fact that it would provide an improved and alternate method to accurately measure the radiation incident on the web on the roll/drum so that the characteristics of the web or the type of radiation that is collected can be determined.

18. Claim 16 is rejected because collecting and measuring radiation from a second source is merely a duplication of the limitations of claims rejected above, except for the comparison of two measurements made. Comparing two or more measurements made in any given method is old and well known. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to compare measured characteristics of radiation collected from a first and second source so that accuracy and repeatability of the measurements can be determined.

19. Claim 18 is rejected for the reasons of rejection of claims 4 and 15 above.

20. Claims 27-31 are rejected because all claim limitations are disclosed by Iwasaki, Berner and Arihiro, except for the explicit disclosure of an opening sufficient to allow passage of radiation disposed in the outer surface of the roll, wherein the collection device is disposed within the opening. It is obvious from Arihiro's teaching that if it is not for the opening on the surface of the roll, the light will not pass through and be incident on the collection device 39a.

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Also, it is obvious that the collection device has to be within the opening, and in line with the source and within a certain window to receive the radiation.

21. Applicant's amendment has necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Allowable Subject Matter

22. Claim 7 is allowable.

23. Claim 7 is allowable because the prior art of record, taken alone or in combination, fails to disclose or render obvious a method of collecting radiation comprising a roll that includes an outer surface having a series of patterns which forms seams between the patterns and further comprises disposing a collection device at the seam at the outer surface, in combination with the rest of the limitations of said claim.

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Conclusion

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Roy M. Punnoose** whose telephone number is **571-272-2427**.

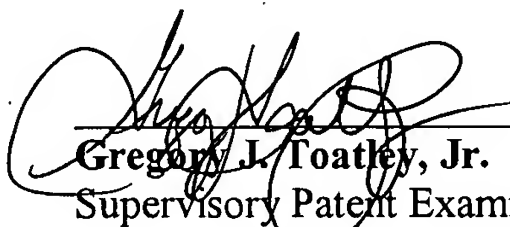
The examiner can normally be reached on 9:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Gregory J. Toatley, Jr.** can be reached on **571-272-2800 ext.77**. The fax phone number for the organization where this application or proceeding is assigned is **703-872-9306**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Roy M. Punnoose
Patent Examiner
Art Unit 2877
October 22, 2004




Gregory J. Toatley, Jr.
Supervisory Patent Examiner